

TRILOS
More than Equipment

Paste Mixer Series



TRILOS

✉ info@trilosgroup.com
🌐 www.trilosgroup.com

Due to the continuous improvement of products, such as the technical parameters in this manual are modified without prior notice.

About TRILOS Paste Mixer

Integrated Mixing & Vacuum Defoaming Technology for High-Viscosity Materials



PM1KV

PM600V

PM300V

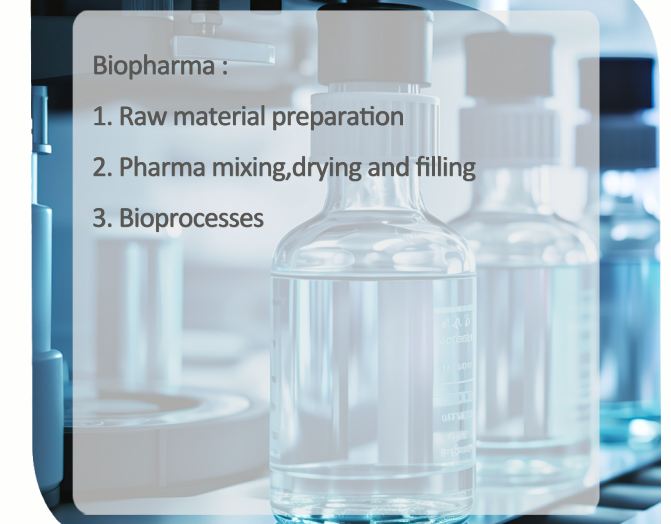
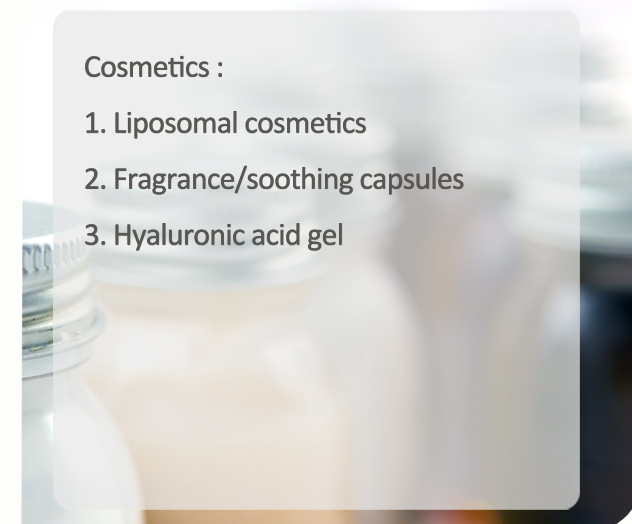
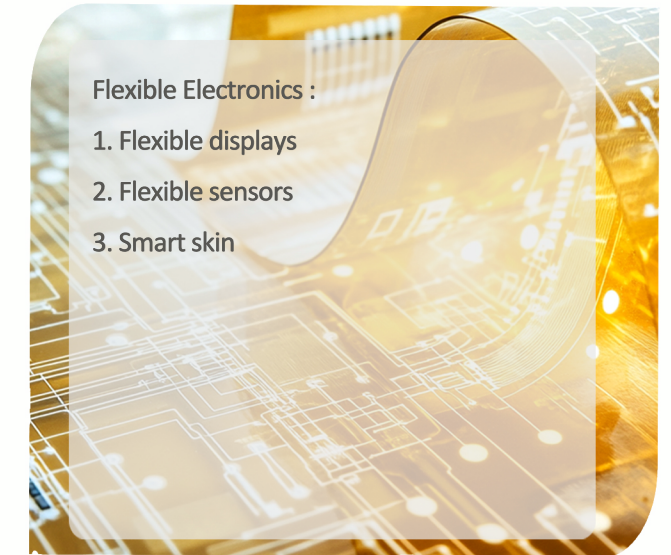
TRILOS Paste Mixer Series is engineered for precision mixing and high-efficiency vacuum defoaming of medium to ultra-high viscosity materials. It integrates planetary agitation, centrifugal compaction, and programmable vacuum control into a single compact system.

Designed for R&D, pilot production, and full-scale manufacturing, the TRILOS Paste Mixer delivers:

- Uniform dispersion
- Submicron bubble elimination
- Reduced processing time
- Stable and repeatable batch quality

Application

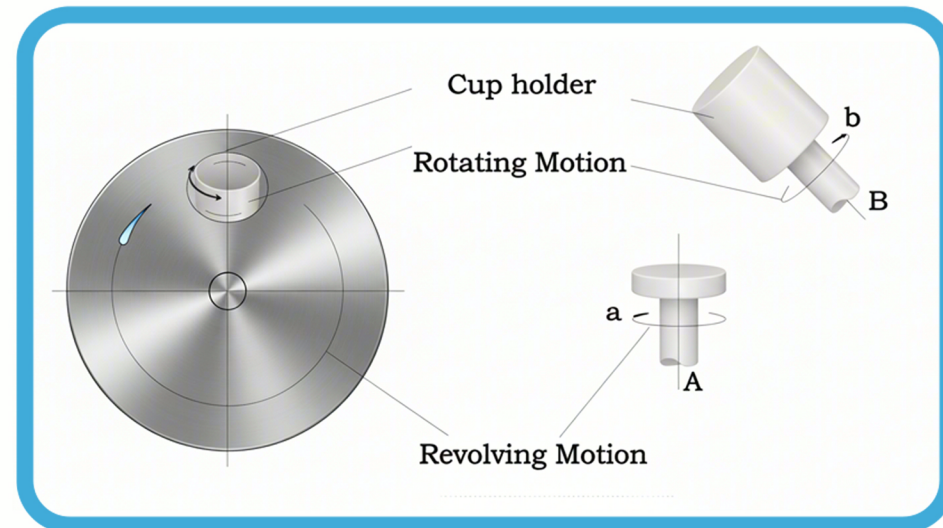
TRILOS Paste Mixer Series supports diverse high-value industries:



Technical Principle

TRILoS Paste Mixer operates through a dual-motion planetary mechanism:

Simultaneous Rotation and Revolution

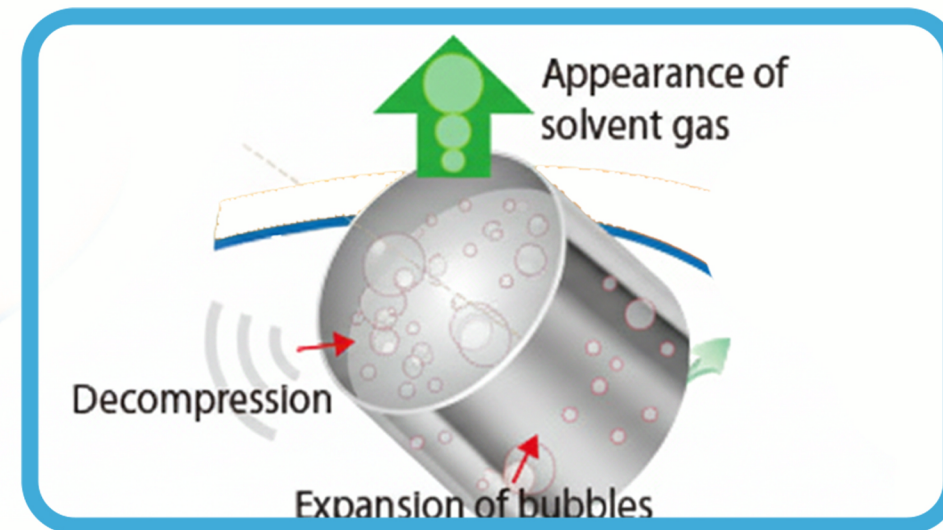


Revolution: The container rotates around the central axis.

Rotation: The container simultaneously rotates on its own axis.

This synchronized motion generates strong shear force and high centrifugal force, enabling rapid homogenization, layer-by-layer compression of material and reduced particle size.

High Centrifugal Compaction

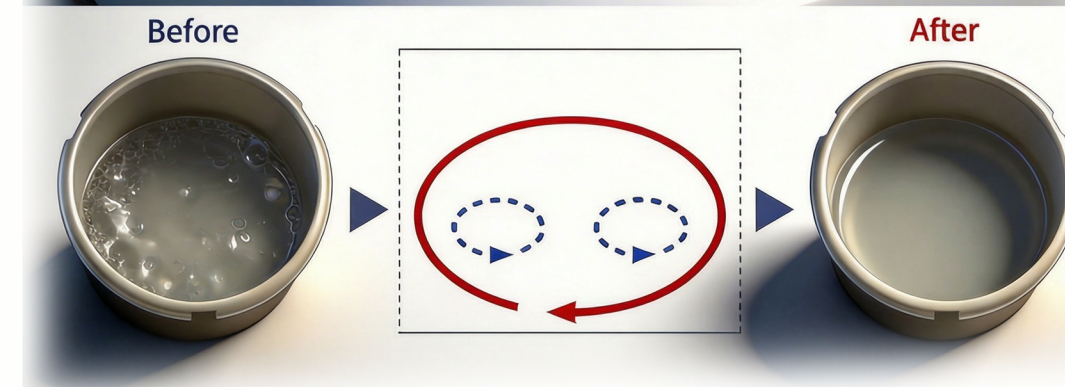
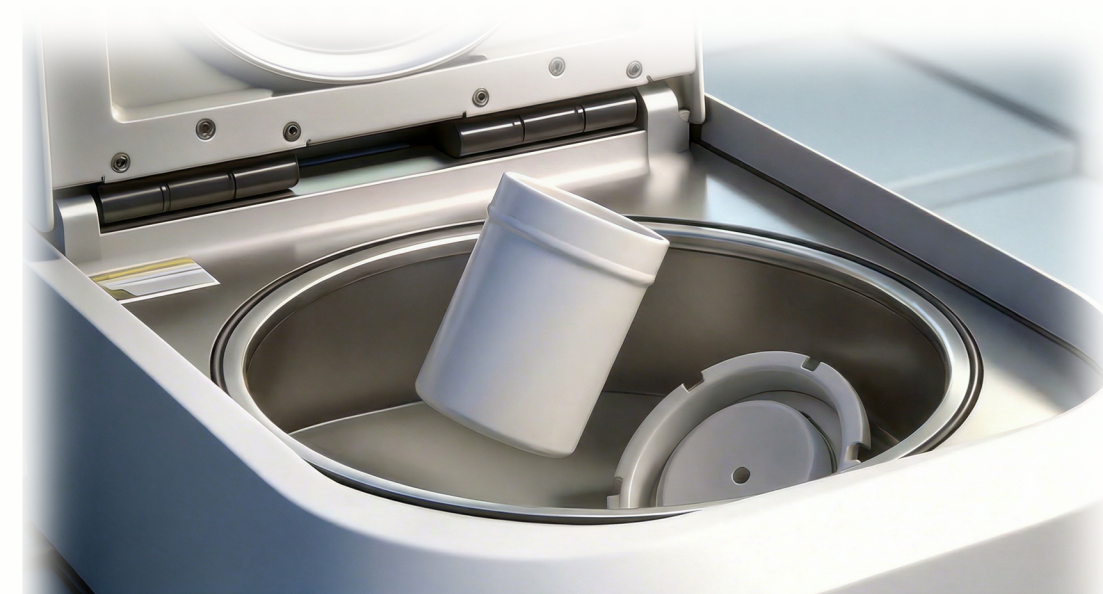


Under centrifugal force, the material is pressed firmly against the container wall, forming a thin layer that undergoes continuous extrusion and rolling. This mechanism prevents overflow, eliminates dead zones and ensures full-volume mixing.

Vacuum-Assisted Defoaming



As vacuum is applied in the mixing process, sub-micron bubbles expands and trapped gas is efficiently extracted. The stability and uniformity of the final product is significantly improved.



Key Features

- Integrated Mixing & Defoaming
- Intelligent PLC System
- Adjustable Speed Control

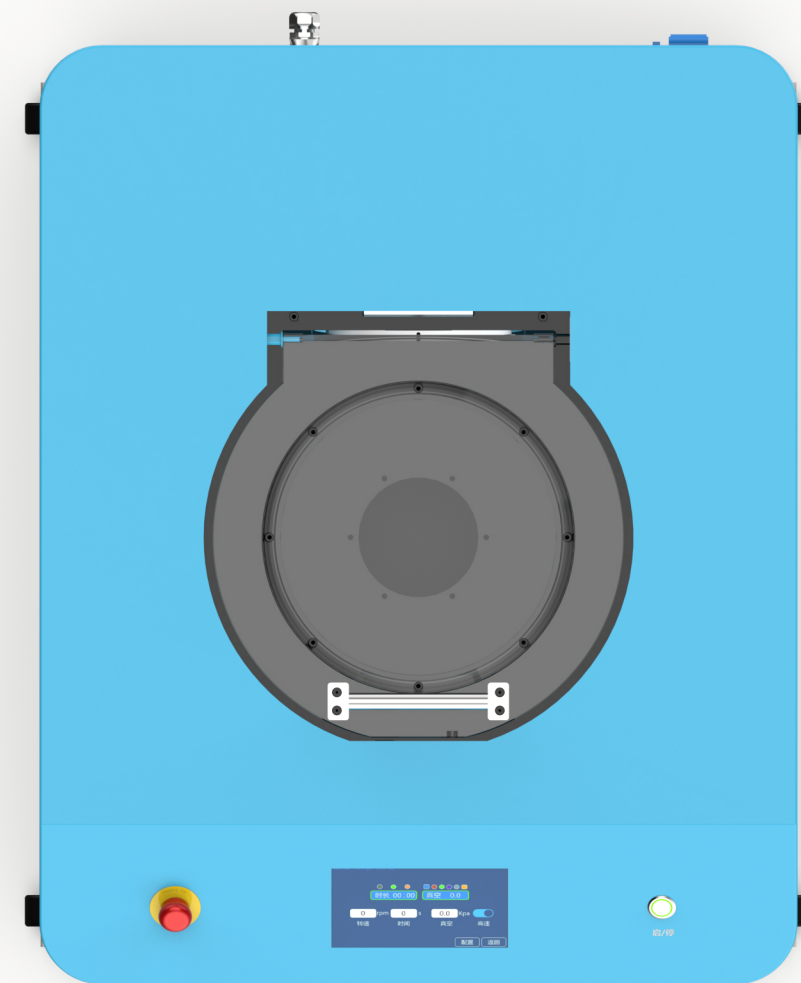


Integrated Mixing & Defoaming

TRILOS Paste Mixer completes mixing and defoaming in a single process cycle, they are suitable for high and ultra-high viscosity materials. They are capable of removing submicron air bubbles.

It achieves:

- Improvement of material uniformity and structural stability
- Reduction of downstream defects such as voids and delamination



Intelligent PLC System

TRILoS Paste Mixer Series are equipped with a user-friendly 7-inch touchscreen with an intelligent PLC control system. The system allows:

- Real-time vacuum pressure and speed curve display
- 10-stage programmable process settings
- Historical data save & export functionality

These features enable:

- Process parameter optimization
- Traceable production records
- Compliance with modern intelligent manufacturing standards
- Support for quality control documentation

Vacuum configuration is optional depending on process requirements.

Adjustable Speed Control

- Independent control of rotation and revolution speeds
- Wide RPM range for process flexibility
- Suitable for sensitive materials and shear-demanding formulations



TRILoS PM300V

Laboratory Benchtop Model

This model is available in single-cup and double-cup versions. They are equipped with an external vacuum pump. It is designed for laboratory R&D and small-batch experimental production.



Specifications

Model	PM300V Single-Cup	
Max. Volume	250ml	8.45 fl oz
Revolution Speed	400 – 3000 rpm	400 – 3000 rpm
Rotation Speed	400 – 3000 rpm	400 – 3000 rpm
Voltage	AC 220V / 50Hz	AC 220V / 50Hz
Power	900 W	1.21 HP
Net Weight	60 kg	132 lb
Dimensions (L×W×H)	380 × 500 × 490 mm	15.0 × 19.7 × 19.3 in

Model	PM300V Double-Cup	
Max. Volume	300 ml × 2	10.14 fl oz × 2
Revolution Speed	300 – 2000 rpm	300 – 2000 rpm
Rotation Speed	300 – 2000 rpm	300 – 2000 rpm
Voltage	AC 220V / 50Hz	AC 220V / 50Hz
Power	2.2 kW	2.95 HP
Net Weight	150 kg	331 lb
Dimensions (L×W×H)	550 × 630 × 810 mm	21.7 × 24.8 × 31.9 in



TRILoS PM600V

Pilot-Scale Production Model

This model is equipped with an internal vacuum pump. The floor-type design with leveling casters is suitable for transport and installation flexibility.

Specifications

Model	PM600V	
Max. Volume	610 ml × 2	20.63 fl oz × 2
Revolution Speed	300 – 2000 rpm	300 – 2000 rpm
Rotation Speed	300 – 2000 rpm	300 – 2000 rpm
Voltage	AC 220V / 50Hz	AC 220V / 50Hz
Power	3.3 kW	4.43 HP
Net Weight	178 kg	392 lb
Dimensions (L×W×H)	550 × 630 × 810 mm	21.7 × 24.8 × 31.9 in



TRILOS PM1KV

Industrial Production Model

This model is equipped with an internal vacuum pump. It is designed for continuous and large-scale manufacturing environments.

Specifications

Model	PM1KV	
Max. Volume	1000 ml × 2	33.81 fl oz × 2
Revolution Speed	300 – 2000 rpm	300 – 2000 rpm
Rotation Speed	300 – 2000 rpm	300 – 2000 rpm
Voltage	AC 220V / 50Hz	AC 220V / 50Hz
Power	3.5 kW	4.69 HP
Net Weight	200 kg	441 lb
Dimensions (L×W×H)	800 × 680 × 890 mm	31.5 × 26.8 × 35.0 in

